

# Menorrhagia management options

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## SUMMARY

*A prospective study of the management of menorrhagia in new patients presenting to gynaecological outpatients was undertaken at four centres in Northern Ireland and two in Great Britain. 325 patients were enrolled, the majority of whom (87%) had severe menorrhagia. Patients in all six centres were similar in relation to age, marital status, parity, use of contraception and severity of symptoms. 62% of the patients were managed medically, improved and were discharged. The rates of surgical intervention, in particular in women aged less than 40, appeared higher in the Northern Ireland hospitals than Great Britain. There is a need to review and audit current practices in the management of menorrhagia.*

## INTRODUCTION

Menstrual disorders are common, accounting for almost 3% of all outpatient referrals and over 20% of referrals to gynaecology outpatients clinics.<sup>1</sup> Menorrhagia, which accounts for a high proportion of gynaecology referrals, causes distress and restriction of daily activities and also leads to high levels of both medical and surgical intervention. In spite of these high levels of surgical intervention few women are found to have any pathological uterine condition, particularly in women aged less than 40.<sup>2</sup>

It is well recognised that the health and social services in Northern Ireland are funded at a higher level than Great Britain,<sup>3</sup> in particular Northern Ireland's per capita expenditure on acute services has been much greater than that for England and Wales.<sup>3,4</sup> There is also variation in the rate at which various types of medical and surgical activity are carried out in different regions in the United Kingdom.<sup>3</sup> One such area is in the treatment of menstrual disorders. Two procedures often associated with the management of menorrhagia, uterine dilatation and curettage (D&C) and hysterectomy, have received much attention both in the media and in the medical literature.<sup>5,6,7</sup> D&C involves a general anaesthetic and often an overnight stay, although the Audit Commission estimates that up to 86% could be performed as day cases.<sup>8</sup> In addition the efficacy of D&C as a diagnostic tool has been questioned.<sup>6</sup>

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In Great Britain D&C rates remained stable during the period 1977-1989 (at around 70/100,000 women per year) while in the United States there was a dramatic decrease during the same period, from 88.7 per 10,000 women in 1977 to 10.8 per 10,000 women in 1989.<sup>6</sup> Accurate data is not available for Northern Ireland for the same time period but D&C rates for Northern Ireland for 1991/92 and 1992/93 are still higher than those quoted for other regions in the United Kingdom for 1989/90. The Northern Ireland rate was 134/10,000 women per year (1991/1992) and 123/10,000 women per year for 1992/1993. In 1989/1990 the rate in England and Wales was: 71.1/10,000 women per year the Scottish rates 65.2/10,000 women per year and the Oxford region rate: 56.6/10,000 women per year.<sup>6,9</sup> (These rates refer to non-pregnancy associated procedures). During both periods in Northern Ireland more than half the D&C's (1991/92-52%, 1992/93 52.4%) were performed in women less than 40 years old<sup>9</sup> whereas in the Oxford region in 1989-90 only 39% of D&C's were carried out in women aged less than 40.<sup>6</sup>

Hysterectomy rates vary up to sixfold between countries<sup>10</sup> and there are also regional differences within countries.<sup>5</sup> Data for Northern Ireland for 1991/92 and 1992/93 show a hysterectomy rate of 33 per 10,000 women per year compared with the UK figure of 30.4 per 10,000 women per year.<sup>9</sup>

This study was carried out to collect information about the clinical presentation, investigation and management of women presenting to hospital gynaecological outpatients with symptoms of excessive menstrual bleeding and to analyse the differences in the management of menorrhagia between different centres.

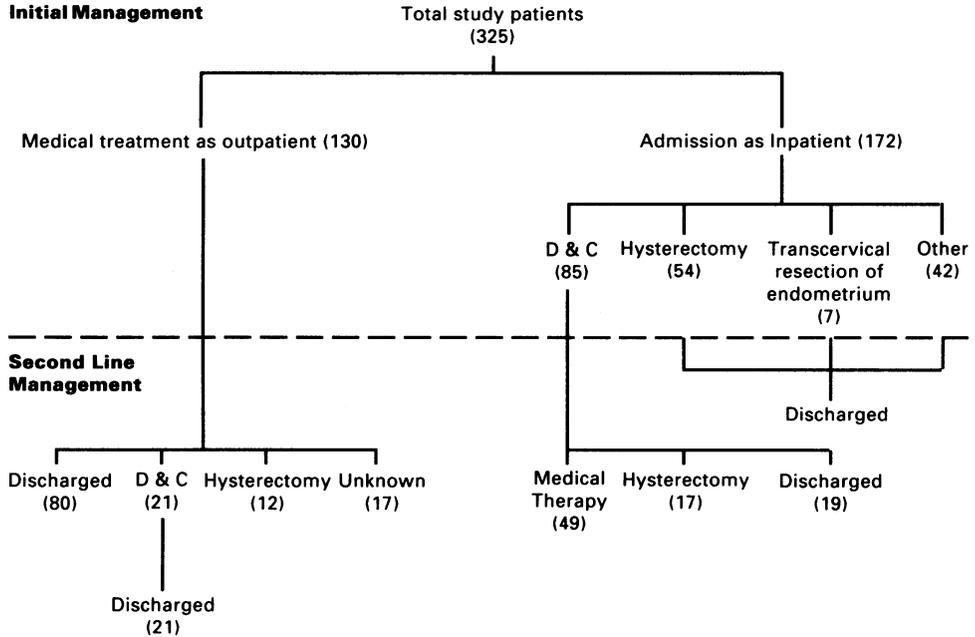


Figure 1 Management of 325 patients with menorrhagia. (some patients had more than one treatment).

**METHODS**

The two year multicentre prospective study was carried out between January 1991 and December 1992. There were four centres in Northern Ireland, one in Scotland and one in England.

The subjects were all new patients presenting to gynaecological outpatients with symptoms of menorrhagia. They were initially identified by screening the referral letters and enrolled in the study once they had given verbal consent. A three stage colour coded, doctor administered questionnaire was used for initial presentation, hospital admission and review. The questionnaire was designed to obtain basic demographic data, the symptoms of menorrhagia, the nature and results of investigations, proposed management, investigation and treatment in hospital, the outcome of treatment, and patient satisfaction with their treatment. Data was analysed on SPSS/PC.

**RESULTS**

A total of 325 women were enrolled in the study, 245 in Northern Ireland, 80 in Great Britain. A profile of the patients was carried out in relation to age, marital status, parity, use of contraception and severity of symptoms. The mean age of patients was 38 years (range 15-54) and 48% of women were aged less than 40. Eighty-two percent were married and 86 percent were parous. Forty-three percent were using some form of contraception and 19% had been sterilised. Criteria were devised to describe the patients as having mild, moderate or severe menorrhagia (Table 1). On this basis the majority of patients (87%) were assessed as having severe menorrhagia. There was no significant difference in any of these patient characteristics between the 6 centres.

TABLE 1

*Criteria used to assess the severity of symptoms in women presenting with menorrhagia.*

<i>Criteria</i>	<i>Mild</i>	<i>Moderate</i>	<i>Severe</i>
Total of duration of period (days)	0-5	6-9	10+
Days of heavy bleeding	0-2	3-4	>5
Interval between periods	>24	<24	<21
Other	Use tampons only		Clots, flooding, restricted daily activities. Use of heavy or >2 pads.

Overall 70% of patients were seen by a senior doctor (consultant/senior registrar or gynaecologist) but there was a wide variation between centres (range 10%-91%). Of the 325 patients 282 (87%) had a vaginal examination performed and 82 of these were described as abnormal. Twenty-four patients had outpatient endometrial biopsy performed, and 97 had vaginal ultrasound revealing an abnormal uterus in 31 patients.

The first line management of each patient was decided at the initial consultation; 130 (40%) of the 325 patients were initially managed medically as outpatients (Table 2) and of these 80 (62%) improved and were discharged; 33 (25%) subsequently had a surgical procedure and the outcome is unknown in 17 (13%) (Figure).

TABLE 2

*Medical management of patients with menorrhagia.*

<i>Treatment</i>	<i>No</i>
Hormones	61
Prostaglandin inhibitor	22
Antifibrinolytic inhibitor	21
Hormones and prostaglandin inhibitor	14
Hormones and antifibrinolytic inhibitor	8
Prostaglandin inhibitor and antifibrinolytic inhibitor	4

172 patients (53%) were initially admitted to hospital for investigation and treatment; 85 of these had a D&C performed, 54 underwent hysterectomy, seven had a transcervical resection of endometrium and the remainder (42) had a variety of other procedures carried out (Table 3).

TABLE 3

*Inpatient management of patients with menorrhagia.*

<i>Procedure</i>	<i>No</i>
D&C only	89
Hysterectomy only	66
D&C and hysterectomy	17
Oophorectomy	22
Transcervical resection of endometrium	7
Blood transfusion	14
Removal of intrauterine contraceptive device	4
Sterilisation	2

Overall 205 out of the 325 patients (63%) were admitted to hospital at some stage for investigation and management of their symptoms. Of these 106 had a D&C performed (74% as a day procedure). Forty of these D&C patients were discharged with no further treatment, 17 subsequently had a hysterectomy and 49 were subsequently treated medically.

Eighty-three of these 205 patients admitted to hospital had a hysterectomy performed, 54 (65%) having had no prior treatment. This operation was undertaken for severe symptoms in 76 (92%) of cases. The post-operative complication rate was 25%, the most common complication being a wound infection. Pathological findings were normal for the 24 endometrial biopsies, and all of the 106 D&C's. For the 83 hysterectomies 31 were normal, 31 showed one or more fibroids, 14 adenomyosis, 6 had endometriosis and there was one case of squamous metaplasia.

The preliminary analysis having shown a high rate of surgical intervention (62%), we compared rates of D&C and hysterectomy in the individual centres. Due to the small numbers involved in some centres the results for the four Northern Ireland centres were pooled and compared with the combined results from the two Great Britain centres. This suggested that the four centres in Northern Ireland performed proportionally more D&Cs than the two Great Britain centres ( $\chi^2 = 0.33$ ,  $p > 0.5$ ), and that more Northern Ireland women aged less than 40 years had a D&C performed ( $\chi^2 = 1.72$ ,  $p = 0.19$ ), although neither of these differences achieved statistical significance. More patients in Northern Ireland had a hysterectomy performed than in the centres in Great Britain ( $\chi^2 = 5.65$ ,  $p < 0.05$ ).

TABLE 4

*Comparison of Northern Ireland (4 centres) and Great Britain (2 centres).*

	<i>Northern Ireland</i>	<i>Great Britain</i>	<i>Total</i>
<b>Interventions</b>			
D&C	82 (33%)	24 (30%)	106
Hysterectomy	70 (29%)	13 (16%)	83
Total	152 (62%)	37 (46%)	189
<b>Age at D&amp;C</b>			
<40 yr	47 (57%)	10 (42%)	
>40 yr	35 (43%)	14 (50%)	
Total	82	24	106
<b>Age at Hysterectomy</b>			
<40 yr	30 (44%)	4 (31%)	
>40 yr	40 (56%)	9 (60%)	
Total	70	13	83

## DISCUSSION

The majority of women in this study were referred with symptoms of severe menorrhagia but little information was available on whether they had been adequately treated by their general practitioners prior to being seen at the gynaecological outpatients. One study of referrals to a gynaecology outpatients revealed that as many as 43% of women referred had mentioned their symptoms less than one month before the referral and half of these did not appear to have symptoms indicating urgent referral, yet their general practitioners had not tried a course of medication.<sup>1</sup>

Almost two thirds of women in this study had a surgical intervention for management of their symptoms – one third of the women having a D&C and more than a quarter having a hysterectomy. No uterine pathology was detected in any of the women having a D&C, or in more than a third of women having hysterectomy. Given that almost two thirds of patients treated medically in the study had a successful outcome it is possible that some of these surgical procedures could have been avoided. It is clear that some gynaecologists believe that it is appropriate to carry out D&C despite the evidence that it is diagnostically inaccurate, therapeutically ineffective and also risks trauma, especially in women who have not had children.<sup>11</sup>

TABLE 5

*Age specific D&C rates in Northern Ireland 1992/1993 and Oxford region 1989/1990.*

Age group (Years)	Age Group (Years) D&C rate/10,000 women	
	Northern Ireland <sup>9</sup>	Oxford <sup>6</sup>
<20	13.5	2.5
20–	86.8	33.4
25–	149.4	53.4
30–	196.6	83.2
35–	228.6	103.9
40–	235.7	123.5
45–	246.0	139.5
50–	191	133.1
55–	86.2	75.7
60–	45.1	40.0
>=65	33.1	23.8

(Source: DHSS (NI) PAS Database<sup>9</sup> and Coulter et al<sup>6</sup>)

Almost half the women referred were aged less than 40 years. Most women in this age group presenting with dysfunctional bleeding show no gross pelvic disease; in these women endometrial adenocarcinoma is rare, and premalignant adenomatous hyperplasia is also extremely uncommon.<sup>11</sup> The Royal College of

Gynaecologists has recently produced guidelines on the use of D&C in women of this age group,<sup>12</sup> which indicate that there are very few indications for the use of D&C in a woman under the age of 40 and alternative diagnostic methods should be used if indicated, such as outpatient hysteroscopy or endometrial sampling. Transcervical resection of the endometrium is perhaps an acceptable alternative to hysterectomy, but at present there is a lack of long-term follow up.<sup>13</sup>

This study shows higher rates of surgical intervention for the management of menorrhagia in women in Northern Ireland than in Great Britain, despite there being no difference in patient characteristics. Although the differences in D&C rates between Northern Ireland and Great Britain were not statistically significant the high rate of D&C in younger women in Northern Ireland is inappropriate. The results from this study would be in keeping with the high age specific D&C rates for young women in Northern Ireland. Age specific D&C rates are higher in all age groups in Northern Ireland compared with those from the Oxford region (Table 5).

The use of D&C and hysterectomy should be subject to clinical audit in hospitals in Northern Ireland and guidelines developed in conjunction with general practitioners for the management of patients with menorrhagia.

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